

## REMARKS

In the Application, claims 1-15 are pending. This Application is a continuation of U.S. Patent Application No. 09/904,631, filed July 13, 2001, and entitled "Tunable Ferro-Electric Filter". A new first paragraph is provided that sets forth the proper claim to priority. Claims 1-15 of this Application relate to the claims of the parent application as shown in the table below:

10/685,239	09/904,631
Claim 1	Claim 1
Claim 2	Claim 2
Claim 3	Claim 3
Claim 4	Claim 4
Claim 5	Claim 11
Claim 6	Claim 12
Claim 7	Claim 13
Claim 8	Claim 14
Claim 9	Claim 15
Claim 10	Claim 16
Claim 11	Claim 18
Claim 12	Claim 19
Claim 13	Claim 28
Claim 14	Claim 29
Claim 15	Claim 30

The claims in this continuation application are the non-allowed claims from an Office Action mailed Sept. 27, 2002 in the parent application. The Examiner allowed or found allowable all other claims. The following references are to the office action mailed Sept. 27, 2002 in the parent application.

In paragraph 1-1 of the Office Action, the Examiner identifies two informalities in the specification. The applicant responds as follows:

As to the informality on page 47, ln. 3, the applicant amends the specification to correct "shich" to read "which", as suggested by the Examiner. The applicant notes that this informality has already been corrected in the published version of this application.

As to the numbering of the capacitors at page 49, ln. 16, the applicant amends the specification to correctly identify the capacitors as "153 and 155", as suggested by the Examiner.

In paragraphs 2-1, 2-2, 2-3, and 2-4, the Examiner identifies several informalities in the drawings, which were corrected and approved in the parent application. These same corrections were included in the drawings filed with this application, so all drawing informalities are believed to be corrected.

#### Response to §102 Rejections

In the Office Action the Examiner rejects claim 4 under 35 U.S.C. § 102(b) as being anticipated by Gruenwald (US Pat. No. 6,049,726). The teaching and device of Gruenwald relate to superconducting temperatures. See Gruenwald col. 1, lns. 42-45 and col. 2, lns. 45-51, for example). Amended claim 4 requires the claimed filter be constructed to operate in a temperature range between about -50 degrees Celsius and 100 degrees Celsius, which is far above superconducting temperatures. Since amended claim 4 has at least one element not taught in Gruenwald, the applicant respectfully submits that Gruenwald does not anticipate amended claim 4.

In the Office Action the Examiner rejects claims 4 and 13-15 under 35 U.S.C. § 102(b) as being anticipated by Mueller (US Pat. No. 6,097,263). Herein, applicant amends claim 4 to have the ferro-electric material directly fabricated onto the volumetric resonator. As described on page 24, lns. 5-14 of the specification, direct fabrication of the f-e capacitor structure with the resonator it is meant to tune provides better performance and lower loss. Mueller fails to provide such a teaching, instead having a resonant circuit (70) that is positioned on or near dialectic block (66). Since Mueller fails to disclose all elements of claim 4, the applicant respectfully submits that Mueller does not anticipate claim 4.

As to claim 13, the applicant amends claim 13 to introduce a resonant structure in the preamble, and provides for fabricating the ferro-electric device onto the resonant structure. Since Mueller does not disclose such a fabricating step, the applicant respectfully submits that Mueller does not anticipate claim 13, or dependent claims 14 and 15.

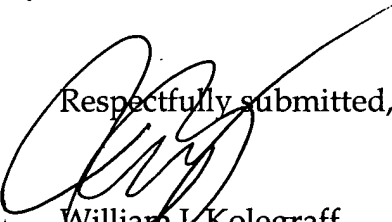
Response to §103 Rejections

In the Office Action the Examiner rejects claims 1-3, and 5-12 under 35 U.S.C. § 103(a) as being obvious over Mueller (US Pat. No. 6,097,263) in view of Bruchhaus (US Pat. No. 6,108,191). Amended independent claims 1 and 4 each recite elements requiring a direct fabrication, which is not taught or suggested by Mueller. Further, Bruchhaus fails to overcome this deficiency, instead disclosing a multi-layer capacitor. Since the cited references, either alone or in combination, fail to disclose all the elements in claims 1 and 4, the applicant respectfully submits that claims 1-12 are not rendered obvious by Mueller in view of Bruchhaus.

Conclusion

Applicant respectfully submits that all pending claims are now in a condition for allowance. If the Examiner would find it useful, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

  
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